PHARMACOLOGY BIOCHEMISTRY AND BEHAVIOR

VOLUME 45, 1993
SUBJECT AND AUTHOR INDEX

Pergamon Press
New York • Oxford • Seoul • Tokyo

PHARMACOLOGY BIOCHEMISTRY AND BEHAVIOR

Editor-in-Chief

MATTHEW J. WAYNER

Division of Life Sciences, The University of Texas at San Antonio, San Antonio, TX 78249-0662

Editorial Advisory Board

ROBERT L. BALSTER, Virginia Commonwealth University, Richmond, VA
BERNARD BEER, Medical Research Division of American Cyanamid, Pearl River, NY
ROBERT J. BLANCHARD, University of Hawaii, Honolulu, HI
ALLAN C. COLLINS, University of Colorado at Boulder, Boulder, CO
DONALD V. COSCINA, Clark Institute of Psychiatry, Toronto, Ontario, Canada
JACQUELINE N. CRAWLEY, Clinical Neuroscience Branch, NIMH, Bethesda, MD
ADRIAN J. DUNN, Louisiana State University, Shreveport, LA
BURR EICHELMAN, Temple University, Philadelphia, PA
JOHN L. FALK, Rutgers University, New Brunswick, NJ
SANDRA E. FILE, Guys Hospital Medical School, London, England
WILLIAM J. FREED, National Institute of Mental Health, Washington, DC
RICHARD A. GLENNON, Virginia Commonwealth University, Richmond, VA
A. J. GOUDIE, University of Liverpool, Liverpool, England
F. G. GRAEFF, Universidad de São Paulo, São Paulo, Brazil
M. R. C. GREENWOOD, University of California at Davis, Davis, CA
ROLAND R. GRIFFITHS, The Johns Hopkins University School of Medicine, Baltimore, MD
J. HANO, Polish Academy of Sciences, Krakow, Poland
STEPHEN G. HOLTZMAN, Emory University School of Medicine, Atlanta, GA
AKIRA HORITA, University of Washington, Seattle, WA
WALTER A. HUNT, NIAAA, Rockville, MD
JOSEPH P. HUSTON, University of Dusseldorf, Dusseldorf, Germany
CHRIS E. JOHANSON, Addiction Research Center, Baltimore, MD
HAROLD KALANT, University of Toronto, Toronto, Ontario, Canada
G. JEAN KANT, Walter Reed Army Institute of Research, Washington, DC
KATHLEEN M. KANTAK, Boston University, Boston, MA
ABBA J. KASTIN, Veterans Administration Medical Center, New Orleans, LA
GEORGE F. KOOB, Research Institute of Scripps Clinic, La Jolla, CA
CONAN KORNETSKY, Boston University Medical Center, Boston, MA
J. DAVID LEANDER, Lilly Research Laboratories, Indianapolis, IN
EMINY H. Y. LEE, Institute of Biomedical Sciences, Taipei, Taiwan, Republic of China
ALLEN S. LEVINE, Veterans Administration Medical Center, Minneapolis, MN
WILLIAM J. McBRIDE, Indiana University School of Medicine, Indianapolis, IN
DONALD E. McMILLAN, University of Arkansas for Medical Sciences, Little Rock, AR
H. MATTHIES, Medical Academy of Magdeburg, Magdeburg, Germany
JACK H. MENDELSON, McLean Hospital, Belmont, MA
FATHY S. MESSIHA, University of North Dakota, Grand Forks, ND
LAURENCE R. MEYERSON, Marion Merrell Dow, Inc., Kansas City, MO
LAWRENCE D. MIDDAUGH, Medical University of South Carolina, Charleston, SC
ROBERT D. MYERS, East Carolina University School of Medicine, Greenville, NC
KIM T. NG, LaTrobe University, Bundoora, Victoria, Australia
JAAK PANKSEPP, Bowling Green State University, Bowling Green, OH
JOHN A. ROSECRANS, Medical College of Virginia, Richmond, VA
HERMAN H. SAMSON, Bowman Grey School of Medicine, Winston-Salem, NC
PAUL R. SANBERG, University of South Florida, Tampa, FL
DAVID S. SEGAL, University of California School of Medicine, La Jolla, CA
PHIL J. SKOLNICK, National Institutes of Health, Bethesda, MD
DEREK VAN DER KOOY, University of Toronto, Toronto, Ontario, Canada
JEANNE M. WEHNER, University of Colorado at Boulder, Boulder, CO
J. C. WINTER, State University of New York School of Medicine, Buffalo, NY
ALICE M. YOUNG, Wayne State University, Detroit, MI
IAN S. ZAGON, M. S. Hershey Medical Center, Hershey, PA

PHARMACOLOGY BIOCHEMISTRY AND BEHAVIOR

Editorial Offices:
Matthew J. Wayner
Division of Life Sciences, The University of Texas at San Antonio, 6900 North Loop 1604 West
San Antonio, TX 78249-0662

Production Editor:
Sara Beth Morrone
Pergamon Press, Tarrytown, NY 10591-5153

Publishing, Subscription, and Advertising Offices:
Pergamon Press Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, USA, INTERNET "PPI@PERGAMON.COM" and Pergamon Press Ltd., Headington Hill Hall, Oxford OX3 0BW, England

Published Monthly
Annual institutional subscription rate (1993): £785 (US$1256)
Sterling prices are definitive. US dollar prices are quoted for convenience only and are subject to exchange rate fluctuation. Prices include postage and insurance and are subject to change without notice.

Pharmacology Biochemistry and Behavior, Vol. 45, pp. III–VIII, 1993
Printed in the U.S.A. All rights reserved.

0091-3057/93 $6.00 + .00
Copyright © 1993 Pergamon Press Ltd.

SUBJECT INDEX

Aberrant drinking, 233
Acetaldehyde, 215
Acetylcholine, 995
Acetylcholine release, 147
Acetylcholinesterase, 363, 713
Acquisition, 749
ACTH, 601
Activity, 553
Acute ethanol, 95
Adenosine, 913, 987
Adenosine agonists, 951
Adenosine antagonists, 987
Adenosine A_1 receptors, 951
Adenosine A_2 receptors, 951
Adrenocorticotropic hormone, 629
Adult oral catheter test, 243
Affective disorders, 247
Aggression, 153, 549
Aging, 455
Alarm substance, 561
Alcohol, 59
Alcohol drinking, 233, 697, 741
Alcohol preference, 233
Alcohol-preferring rats, 697
Alcoholism, 233, 741
Alkylxanthine, 913
α_2-adrenoceptors, 123
α-difluoromethylornithine, 967
α-methyl-*p*-tyrosine, 647
α_2-receptor(s), 247, 269
Alprenolol, 269
Alzheimer's disease, 925
Amfonelic acid, 71
Amineptine, 897
Aminorex, 229
Amnesia, 455
Amperozide, 233, 741
Amphetamine, 45, 71, 131, 629, 729
Amygdala kindling, 445
Analgesia, 161, 251
Anesthesia, 849
Angiotensin-converting enzyme inhibitors, 35, 811
Angiotensin II, 455
Animal depression model, 201
Animal model, 817
Animal models of depression, 27
Anisomycin, 225
Anorectics, 131
Anorexia, 45, 589
Antianalgesia, 383
Anticholinesterases, 677
Anticonvulsant(s), 247, 445, 913
Anticonvulsant effect, 881
Antidepressant drugs, 987
Antinociception, 383
Antipsychotic(s), 9, 263
Antipunishment, 263
Anxiety, 1, 423, 429, 685, 803, 827, 931
Anxiogenic, 967
Apomorphine, 655, 817
Arcurate nucleus, 837
Atipamezole, 123
Atropine, 209
Attention, 123
Atypical drinking, 741

Baboon, 399
Barbital, 703
Behavior, 179, 629, 777
Behavioral reorganization, 655
Behavioral screen, 987
Behavioral sensitization, 691
Behavioral supersensitivity, 195
Benzodiazepine, 77
Benzodiazepine receptor, 827
β-adrenergic receptors, 1
Bevantolol HCl, 623
Bicuculline, 881
Bilirubin, 363
Binding study, 65
Bipolar disorder, 247
Blood glucose, 369
B lymphocytes, 665
Body weight, 495
Brain, 359, 419
Brain cortical polyamines, 967
Bulbectomy, 65
Bulimia nervosa, 941
Buspirone, 179

Caffeine, 791, 987
Calcitonin, 507
Calcium, 383
Calcium channel blockers, 703
Calcium channels, 439
Cannabinoids, 291
Carbamates, 677
Carbamazepine, 439
Carbohydrate, 185
Carrageenan, 507
Catalepsy, 195
Cathinone, 229
Cat odor, 931
Cats, 849
Caudate nucleus, 275, 913
Caudate putamen, 343
Central β_1-adrenoceptor, 623
Central injection, 979
Cerebral activator, 445
Cerebral arousal action, 335
Cerebral ischemia, 607, 945
C57Bl/6j mice, 65
Chickens, 117
Chlordiazepoxide, 263, 827
Chloride-insensitive Mg-ATPase, 359
Chloride-sensitive Mg-ATPase, 359
Chlorpromazine, 263, 565
Cholecystokinin, 131
Choline acetyltransferase, 19, 147, 283, 713
Cholinergic, 925
Cholinergic antagonist, 639
Cholinesterase inhibitors, 309
Chronic ethanol, 95
Chronic variable-stress regime, 665
Circadian rhythms, 27
Circling, 343
cis-flupenthixol, 343
Cisplatin, 817
$^{36}Cl^-$ influx, 423
Clomipramine, 941
Clonidine, 247, 607
Clozapine, 51, 71, 263
Cocaine, 179, 209, 229, 239, 269, 283, 399, 539, 549, 733, 749, 759, 905
Cocaine withdrawal, 577
Cognition, 897
Cola seeds, 791
Cold water swim, 161
Color and position discrimination, 107
Conditioned avoidance responding, 951
Conditioned taste aversion, 147
Conditioning, 251, 733
Conflict behavior, 429
Consumatory behavior, 243
Contingent tolerance, 439
Convulsion(s), 173, 561, 755, 823
Copper sulfate, 817
Cortical β-adrenoceptor binding, 665
Corticosterone, 209, 419, 629
Corticotropin-releasing factor, 419
CQ 32-084, 117
CQP 201-403, 117
Cross-tolerance, 527
CXBK/ByJ, 251

DA agonist, 843
DA antagonist, 843
DAKLI, 315
DAMGO, 315
d-amphetamine, 351, 589, 765
D_1 and D_2 dopamine receptors, 291
DBA/2j mice, 65
D-cycloserine, 983
D_1 dopamine receptors, 239
Deermouse, 143, 785
Defensive withdrawal, 1
Delayed-type hypersensitivity reaction, 665

δ-agonist, 979
δ-opioid receptor, 697
Δ^9-tetrahydrocannabinol, 291
Depression, 201
Deprivation, 359
Desipramine, 201, 777
Development, 283
Dexfenfluramine, 495, 963
d-fenfluramine, 593
Diazepam, 445, 455, 755, 803, 881
Differential housing, 905
Diffusion, 857
Diisopropylfluorophosphate, 309
Diltiazem, 703
Discrimination task, 519
Disulfoton, 309
Diurnal rhythms, 785
d-norfenfluramine, 185
Dog, 897
DOI, 269
Domperidone, 817
DOPAC, 291, 327, 673
Dopamine, 9, 45, 95, 173, 179, 291, 327, 507, 673, 685, 691, 725, 729, 837, 843, 897
Dopamine agonists, 685
Dopamine antagonists, 243
Dopamine D_1 and D_2 receptors, 797
Dopamine D_1 receptors, 921
Dopamine receptor interactions, 195
Dopamine receptors, 117, 655, 685
Dopamine receptors supersensitivity, 45
Dopamine release, 759
Dopaminergic drugs, 765
Dopaminergic systems, 233, 741
Dose relationship, 857
DPDPE, 315
D_1 receptor(s), 243, 765
D_2 receptor(s), 243, 765
Drinking, 725
DRL 72-s schedule, 987
Drug discrimination, 179, 221, 305, 865
Drug state learning, 655
DSP4, 429
Dynorphin, 383

EEDQ, 797
EEDQ inactivation, 921
EEG, 791
8-OH-DPAT, 513
Elevated plus-maze, 1, 423
Emesis, 817
Endogenous ligands, 827
Endogenous opioid peptides, 383
Environment-dependent mice, 733
Epilepsy, 321, 857
Estrogen, 255
Ethanol, 225, 305, 327, 445, 455, 465, 473, 597, 755, 803, 983, 991
Ethanol intake, 35
Ethanol preference, 741
Etonidazole, 251
Excitotoxic lesion, 55
Exercise, 713
Experimental depression, 275
Exploratory behavior, 1
Extensor digitorum longus, 713

Fat consumption, 255
Feeding, 131
Feeding behaviour, 369
Fenfluramine, 131
Fenugreek seed, 369
FG 7142, 553, 827
5-HIAA, 673
5-HT, 931
5-HT_{1C}, 221
5-HT_{1A} and 5-HT_{1B} receptors, 577
5-HT_1 receptor agonists, 513
5-HT_{1A} receptor(s), 65, 143, 269, 777, 785
5-HT_2 receptors, 65, 233, 269, 777, 785
5-HT_3 receptor antagonists, 755
5-HT_3 receptors, 589
5-HT receptor subtypes, 593
5-hydroxytryptamine, 935
Fixed-ratio responding, 565
Fluid exchange, 451
Flumazenil, 597, 827
Flunarizine, 703
Fluoxetine, 185, 941, 959
Food, 131, 343
Food deprivation, 601
Food intake, 85, 487, 495
Food reward, 243
Forced swimming test, 201
Forebrain cholinergic neurons, 283
Formalin, 501
4-methylaminorex, 229
Four-vessel occlusion model, 607
Frontal cortex, 65, 327

GABA, 77, 931
$GABA_A$, 945
$GABA_A$ receptor complex, 299
Gastric damage, 597
GDP binding, 487
Generalized seizures, 857
Genetics, 251, 803
Gepirone, 513
Gerbil, 945
Glucocorticoids, 991
Glutamergic dysfunction, 519
Glycine, 519
Greek cross maze, 967

Haloperidol, 71, 179, 263
Head-twitch response, 269
Heat production, 935
Hemagglutinin titer, 665
Heroin self-administration, 963
[^{3}H]flunitrazepam, 77
High-fat diet, 487
Hippocampus, 89, 309, 455, 691, 935
Histamine agonists, 275
Histamine antagonists, 275
Hormones, 255
Hot-plate, 501
Hot-plate test, 153, 607
Human(s), 59, 549
HVA, 673
Hyperactivity, 393
Hyperhydration, 451
Hyperlocomotion, 655
Hyperlocomotor activity, 755
Hyperphagia, 941
Hypertension, 623
Hypnotic effect, 881
Hypoalgesia, 501, 507
Hypothalamus, 65, 837
Hypothermia, 393, 935

ICV, 209
Idazoxan, 607
Imipramine, 27, 201, 445, 561, 665
Immature rats, 19
Immobilization, 327
Immobilization stress, 623
Immune response, 495
Improved anticipation, 897
Indeloxazine HCl, 335, 445
Inescapable shock, 553, 827
Inflammatory nociception, 507
Inhibitory avoidance, 571
Insular cortex, 147
Interstimulus interval, 973
Intrathecal, 383
Intrathecal morphine, 871
Intrathecal serotonin, 871
Ipsapirone, 513
Isoproterenol, 1

Jaw movements, 921

Kainic acid, 55
Ketamine, 889
Kindling, 439, 619

Lactation, 393
Lateral hypothalamus, 455
Lateral parabrachial, 973
Lateral septum, 935
Learned helplessness, 275, 553, 827
Learning, 59, 107, 571
Learning and memory, 925
Learning behavior, 335
Lesions of the nucleus basalis magnocellularis, 19
Lethal effects, 465, 473
Lever press, 399
Lewis rat, 749
Limbic area, 65
Linear locomotion, 315
Lithium chloride, 973
Lobeline, 571
Locomotion, 629
Locomotor activity, 315, 571, 691, 733, 749, 843, 905, 913
Locomotor stereotypy, 71
Locus coeruleus, 429
Long-term potentiation, 455
Lordosis, 837
Lorsartan, 455
LS mice, 95

Macaque, 677
Mania, 247
Matching-to-sample, 925
Maternal behavior, 673
Maudsley rats, 429
Maze, 639
MCPP, 221, 513
Meal patterns, 185
Mecamylamine, 89, 533
Medroxyprogesterone acetate, 77
Memory, 455, 533, 571, 995
Memory trace consolidation, 481
Memory trace retrieval, 481
Mesolimbic dopamine system, 673
Mesolimbic system, 233
Mesolimbic system structures, 741
Metergoline, 185, 963
Methamphetamine, 173, 691
Methaqualone, 351
Methcathinone, 229
Methylphenidate, 71, 729
Mg^{++}-ATPase, 363

MHPG-SO_4, 419
Mianserin, 777
Mice, 251, 383, 905
Mice strains, 465
Microdialysis, 327, 647, 673, 759
MIF-1, 615
Minaprine, 481
MK-212, 221, 593
MK-801, 321, 439
(+)MK-801, 983
Monkey(s), 107, 131, 925
Monoamines, 507
Mood elevation, 455
Morphine, 161, 255, 393, 615
Morphine drug discrimination, 963
Morphine tolerance, 527
Mortality, 55
Motivation, 107
Motor activity, 291, 729
Motor function, 765
Motor impairment, 225
Mouse, 173, 321, 393, 685
Mouse lines, 527
Mouse strains, 473
Muscarinic, 533
Muscarinic receptor(s), 309, 737
μ-agonist, 979
μ-opioid receptor, 697
Mydriasis, 639

NaCl loads, 451
Naked mole-rat, 153
N-allylnormetazocine, 865
Naloxone, 209, 501, 527, 607, 615, 619, 941
Naltrexone, 161, 553
Negative symptoms, 9
Neocortical focus, 889
Neuroleptics, 51, 195, 263, 725
Neurosteroid, 423
Neurotensin, 95
Neurotensin receptors, 95
Neurotoxicity, 647
Neurotransmitter, 945
Ng^+,K^+-ATPase, 363
Nicotine, 305, 375, 571, 803, 925
Nicotinic, 533
Nicotinic receptor, 89
Nicotinic receptor agonists, 571
Nigrostriatal neurons, 291
Nimodipine, 439
Nitric oxide, 321
NMDA, 945
NMDA antagonist, 983
NMDA receptors, 439
Nociception, 153, 255
Nonsmokers, 375
Noradrenaline, 419
Noradrenergic, 247, 429
Noradrenergic system, 123, 335
Norepinephrine, 507, 837
Novelty, 465, 473, 931
NPA, 797
NSAIDs, 153
Nuclei, 995
Nucleus accumbens, 673, 691, 759, 843
Nucleus basalis magnocellularis, 147, 995

Obesity, 51
Ondansetron, 539, 589, 593, 817
One-way active avoidance, 481
Ontogeny, 737, 797
Ontogeny of DA function, 243
Open-field behavior, 201
Operant, 979
Operant behavior, 107
Operant responding, 343
Opiates, 255
Opioid, 979
Opioid antagonists, 409
Opioid-nonopioid interactions, 161
Opioid peptide agonists, 315
Opioid receptor antagonists, 697
Optical isomer, 335
Oral activity, 737
Oral administration, 905
Oral route, 749
Organophosphates, 677
Organophosphorus compounds, 309
Organum vasculosum laminae terminalis, 811
Osborne-Mendel rats, 487
Ovariectomy, 423

Paeoniflorin, 719
Pain, 507, 607
Pain mechanisms, 527
Palatability, 979
PAPP, 865
Pargyline, 837
Passive avoidance conditioned response, 19
Passive avoidance learning, 283
Pavlovian conditioning, 473
p-chlorophenylalanine, 647
PD 116,600, 987
Pecking, 117
Pentobarbital, 107, 383, 881
Pentylenetetrazol, 823, 889
Peony root, 719
Peptide YY, 941
Peptides, 85
Perifornical hypothalamus, 45
Pethidine, 153
Pharmacokinetics, 791
Phencyclidine, 351
Phenoxybenzamine, 209
Phenytoin, 445
Phosphoinositide hydrolysis, 309
Physical dependence, 703
Physostigmine, 713
Pica, 817
Picrotoxin, 619
Pigeon(s), 351, 565
Pilocarpine, 321, 737
Pimozide, 209, 725
Plasma cholesterol, 369
Plasma insulin, 369
Plasma triglycerids, 369
Platform, 359
P/NP rats, 305
Pontine reticular formation, 55
Positive reinforcement, 243
Postnatal recovery, 19
Postnatally developing rat brain, 363
Preening, 117
Pregnancy, 393
Prenatal drug effects, 959
Proactive memory, 519
Procaine, 849
Progestational agents, 77
Progesterone, 77, 255
Progressive-ratio, 539
Propranolol, 1, 209
Protective mechanisms, 857
Psychomotor stimulants, 987
Psychophysical procedure, 399
Psychostimulant, 791
Putrescine, 967
PYY, 941

Quinpirole, 765

Raclopride, 765
Radial maze, 719
Raphe, 995
Rapid eye movement sleep, 359
Rapid tolerance, 225, 983
Rat(s), 45, 51, 89, 123, 179, 201, 225, 239, 283, 369, 473, 507, 533, 561, 577, 597, 607, 639, 703, 719, 759, 765, 777, 791, 817, 823, 827, 843, 857, 889, 963, 973, 995
Rat ALDH2 polymorphism, 215
Reaction time, 351, 399
Rearing, 315
Receptor autoradiography, 945
Reference memory, 89, 639, 765
Reinforcement, 565, 697, 749
Release, 931
Respiration, 849
Reward, 343, 979
Rhythmic activity, 889
Ring-A-reduced metabolites, 77
Ritanserin, 233
Ro 15-1788, 299, 827
Ro 15-3505, 597
Ro 15-4513, 597
RU-24969, 221
Runway task, 89

Saccharin, 979
Saline drinking, 513, 593
Saralasin, 455
Satiety, 85, 185
SCH23390, 239, 539, 765, 843
Scopolamine, 533, 719, 925
Sedation, 117
Sedative action, 991
Seizures, 615, 619
Selective 5-HT uptake inhibitors, 335
Selective NE uptake inhibitors, 335
Self-administration, 131, 239, 539, 749
Sensitization, 59, 577, 655, 729
Sensitization (2-day paradigm), 733
Sensorimotor impairment, 153
Serotonergic system, 335
Serotonin, 9, 143, 263, 487, 507, 785, 865, 959, 995
Serotonin receptors, 233, 741
Serotonin-3 receptor, 759
S 5B/Pl rats, 487
Sheep, 601
Short-term memory, 107
σ-receptors, 865
6-hydroxydopamine, 737
SKF 38393, 765, 843
Smokers, 375
Sniffing, 797
Social behavior, 9
Social defeat, 161
Social interaction, 827
Solcoseryl, 55
Soleus muscle, 713
Spinal dynorphin A release, 409
Spinal morphine, 409
Spinal opiate antinociception, 871

SS mice, 95
Status epilepticus, 55
Stereotyped behaviors, 629
Stereotypic behavior, 291
Stereotypy, 315
Steroid actions on membranes, 991
Steroids, 77
Stress, 1, 161, 299, 327, 495, 629, 823, 827
Stress-induced analgesia, 527
Stressor, 501
Subfornical organ, 811
Subjective responses, 375
Sucrose consumption, 255
Sulpiride, 45
Supersensitization, 737
Sweet taste, 243
Swim stress, 527
Synaptoneurosomes, 423

Tachypnea, 849
Tail-flick, 871
Tail-flick latency, 255
Tail-flick test, 607
Tardive dyskinesia, 195
Taste aversion learning, 973
Temporal regulation, 897
Temporal systems, 519
TFMPP, 221, 513
Therapeutic treatment, 233, 741
Thermoregulation, 247, 935
Thigmotaxis, 315
Thioridazine, 71, 263
Thirst, 35, 513, 593, 725, 811
3α-hydroxy-5α-pregnan-20-one, 423
3,4-methylenedioxymethamphetamine, 647
Threshold, 399
Time perception, 107
T lymphocytes, 665
T-maze alternation, 533
T-maze discrimination, 533
Tolerance, 59, 251, 375, 465, 473, 565, 577, 619, 729
Torpor, 143, 785
Tracking performance, 677
trans-flupenthixol, 343
TRH, 601
Tricyclic antidepressant, 897
Tyr-MIF-1, 615
Tyrosine hydroxylase, 291

Uptake, 931
Urine output, 451

Valproate, 247
Valproic acid, 247
Vascular effects, 959
Ventral striatum, 673
Ventromedial nucleus, 837
Visual reinforcement, 131

Water deprivation, 749
Water intake, 451
Water maze, 571
White-dark maze, 967
Working memory, 89, 639, 719, 765

Yawning, 117
Yohimbine, 269, 607

Zacopride, 759

PHARMACOLOGY BIOCHEMISTRY & BEHAVIOR

VOLUME 45 1993

AUTHOR INDEX

Abel, E. L., 561, 823
Advokat, C., 871
Agnati, L. F., 607
Agüero, A., 973
Aksu, F., 409
Aleksandrova, I. A., 65
Alemany, G., 275
Alexander, J. T., 185
Allen, D. L., 837
Alleva, E., 283
Aloe, L., 283
Altman, H. J., 429
Ambrogi Lorenzini, C., 481
Amit, Z., 465, 473
Andrews, N., 931
Anraku, T., 445
Anthony, P., 439
Araki, T., 945
Armstrong, D. L., 455
Arnedo, M., 973
Arnerić, S. P., 571

Babu, S. R., 713
Balansard, G., 791
Baldi, E., 481
Baptista, T., 45, 51
Barber, D. J., 593
Basso, A. M., 665
Bell, S. M., 749
Beninger, R. J., 343
Bergvall, Å. H., 673
Berman, M., 549
Berman, R. F., 823, 913
Bermúdez-Rattoni, F., 147
Bíró, É., 209, Telegdy, G., 209
Bitran, D., 423
Bitrán, M., 225
Björk, A., 741
Blakely, E., 351
Blick, D. W., 677
Bobek, S., 601
Bobkova, N. V., 65
Bowers, D. A., 399
Brady, J. V., 399
Bray, G. A., 487
Brodkin, J., 647
Brown, G. C., 677
Bruhwyler, J., 897
Buccafusco, J. J., 925
Bucherelli, C., 481
Burkholder, T., 803
Bushnell, P. J., 765

Cade, J. R., 451
Cador, M., 629
Caggiula, A., 375
Caine, S. B., 239
Campbell, A. D., 95
Cancela, L., 665
Cao, W., 803
Carey, R. J., 655
Carr, L. G., 215
Casamenti, F., 19
Cebeira, M., 291
Chase, T. N., 195
Chau, A., 983
Cheung, W. K., 185
Chleide, E., 897
Chover, A. J., 239
Ciccocioppo, R., 513
Collins, A. C., 803
Commissaris, R. L., 429
Compton, A. D., 263
Conway, P. C., 9
Cooper, S. J., 513, 589, 593
Corbett, R., 9
Corwin, R. L., 131
Costentin, J., 685
Cranston, J., 549
Cuevas, C. A., 255
Cui, Y., 935

Damianopoulos, E. N., 655
D'Amico, C. M., 343
Darmani, N. A., 269
Davidson, E. S., 729
Decker, M. W., 571
De Miguel, R., 291
Denny, J. B., 455
Depiante-Depaoli, M., 665
Depoortere, R. Y., 539
De Quijada, M., 51
Deutsch, S. I., 299
Dewey, W. L., 383
Dhingra, P., 429
Dilsaver, S. C., 247
Dube, S. N., 713
Dulchinos, V. F., 309
Dunn, A. J., 1
Dunn, R. W., 9
Dwyer, K. D., 201

Ellinwood, Jr., E. H., 577
Elmer, G. I., 251
Emmett-Oglesby, M. W., 539
Emoto, H., 419
Epstein, L. H., 375
Eriksson, C. J. P., 215
Erwin, V. G., 95, 905
Escobar, M. L., 147
Esseling, K., 857
Eterović, V. A., 967
Ettenberg, A., 725

Fantino, M., 495
Fave, A., 369
Ferchmin, P. A., 967
Ferguson, S. A., 107
Fernández-Ruiz, J., 147
Fernández-Ruiz, J. J., 291
Ferrari, F., 117
Ferrer, J., 439
File, S. E., 931
Fillmore, M. T., 59
Fisler, J. S., 487
Fitts, D. A., 35, 811
Fleshner, M., 161
Foo, H., 501
Frasoldati, A., 607
Fregly, M. J., 451
Friedhoff, A. J., 921
Frye, C. A., 255
Fujimoto, J. M., 409

Gallo, M., 973
Ganesan, R., 393
Gibbs, J., 85
Gilbert, D. B., 589
Giuliani, D., 117
Glennon, R. A., 229, 865
Goldberg, S. R., 251
Goldman, D., 143, 785
Gordon, T. L., 305
Gorman, A. L., 1
Gosnell, B. A., 979
Grauer, E., 639
Greenwood, S. E., 589
Grimaldi, R., 607
Grisel, J. E., 161
Grobe, J. E., 375
Gulyani, S., 359
Gurevich, E. V., 65

Haapalinna, A., 123
Hagan, M. M., 941
Han, H.-W., 51
Hansen, S., 673
Harada, M., 335
Harper, R. K., 849
Harper, R. M., 849
Harrington, G. M., 429
Hartman, H., 9
Hasegawa, S., 817
Hauger, R. L., 629
Heffner, T. G., 987
Hegarty, A. A., 327
Helsley, G. C., 9
Hernández, L., 45, 51
Hernández, M. L., 291
Herndon, J. L., 865
Hienz, R. D., 399
Higgins, G. A., 963
Hitri, A., 299
Hitzemann, R., 759
Hoganson, D. A., 507
Holmes, B. B., 409
Horikawa, Y., 173
Horn, E., 857
Horvitz, J. C., 725
Hulihan-Giblin, B. A., 143, 785
Hyytiä, P., 697

Iwashita, Y., 445

Jackson, H. C., 733
Jackson, W. J., 925
Jacob, R. G., 375
Jadot, G., 791
Jäkälä, P., 123
Janusz, C. A., 913
Jarvis, M. F., 951
Johannesen, T. S., 519
Jones, B. C., 905
Joyner, C. M., 577

Kaczor, T., 351
Kalant, H., 225, 983
Kanai, Y., 945
Kanarek, R. B., 255
Kanui, T. I., 153
Kapitzoglou-Logothetis, V., 195
Kapon, Y., 639
Karim, K. H., 597
Katkov, Y. A., 65
Kato, H., 945
Keith, A. B., 995
Kellogg, C. K., 423
Kenigs, V., 615
Kerman, L. L., 9
Khanna, J. M., 983
Kigoshi, S., 623
King, G. R., 577
Knowlton, B., 55
Koga, C., 419
Kogure, K., 945
Koivisto, T., 215
Koob, G. F., 239, 629
Kostrzewa, R. M., 737
Kroboth, P. D., 77

Lane, J. D., 539
Lankford, M. F., 233, 741
Lee, T. F., 935
Leibowitz, S. F., 185
Levin, E. D., 765
Li, A. A., 987
Li, D. H., 539
Li, T.-K., 215
Licata, A., 549
López-García, J. C., 147

López-García, J. A., 275
Lorang, M., 629
Luine, V. N., 837
Lukacs, L. G., 299
Lund, A., 777

Macenski, M. J., 749
Maier, S. F., 161, 553, 827
Majchrzak, M. J., 571
Maldonado, R., 239
Mallick, B. N., 359
Malyala, A., 647
Manteghetti, M., 369
Marek, G. J., 987
Mareš, P., 889
Marin, C., 195
Marrama, P., 607
Martin, G. E., 951
Mata, A., 51
Mathura, C. B., 251
Matsumoto, K., 719
Matsunaga, T., 817
Mazurkiewicz, M., 123
McAuley, J. W., 77
McDougall, S. A., 797
McNamara, C. G., 729
McNeish, C. S., 759
Meehan, S. M., 305
Mehta, A. K., 755
Meisch, R. A., 749
Melville, L. D., 85
Menaker, M., 27
Mercier, M., 897
Mestlin, M., 797
Meyer, M. E., 315
Meyer, M. E., 315, 843
Miller, S. A., 677
Minkus, D., 247
Mintz, M., 55
Misawa, M., 703, 881
Mizoguchi, H., 703
Mjellem, N., 777
Molina, V., 665
Moran, P. M., 533
Morita, M., 817
Morse, A. C., 905
Moss, D. E., 941
Motegi, H., 881
Mueller, K., 71
Mundy, W. R., 309
Murakami, F., 945
Muramatsu, I., 623
Murphy, M. R., 677
Myers, R. D., 233, 741
Myhrer, T., 519
Myslobodsky, M. S., 55

Najim, R. A., 597
Nakamura, J., 173, 445
Nakazawa, Y., 445
Nash, J. F., 647
Navarro, M., 291
Neely, D., 737
Nesterova, I. V., 65
Ni, H., 849
Ni, J.-W., 719
Nicolau, M. C., 275
Niezgoda, J., 601
Noguchi, H., 703
Nores, W. L., 615, 619
Nose, I., 173
Nutt, D. J., 733
Nyiredi, S., 673

Ohno, M., 89
Ohta, H., 719
Olson, G. A., 615
Olson, R. D., 615
Otmakhova, N. A., 65

Panissaud, C., 685
Panocka, I., 527
Parashos, S. A., 195
Pariser, R., 619
Park, C. H., 299
Park, Y. D., 143
Patel, C. K., 979
Patton, J. H., 959
Paule, M. G., 95
Pelloni, F., 117
Pepeu, G., 19
Peppe, A., 195
Perkins, K. A., 375
Petit, P., 369
Pich, E. M., 607
Pivorun, E. B., 143, 785
Planas, B., 275
Poignant, J. C., 897
Polan-Curtain, J. L., 455
Poling, A., 351
Ponsin, G., 369
Porter, J. H., 263
Post, R. M., 439
Puerto, A., 973
Purdy, R. H., 423

Rabin, R. A., 221
Ramis, C., 275
Ramos, J. A., 291
Ranaldi, R., 343
Rapoza, D., 179
Refinetti, R., 27
Renner, K. J., 837
Rettori, M. C., 897
Reynolds, I. J., 77
Rial, R., 275
Ribes, G., 369
Ricceri, L., 283
Richard, C. A., 849
Richards, J. B., 987
Richardson, W. B., 725
Riekkinen, P. J., 123
Riekkinen, Jr., P., 123
Rivera, E., 967
Robledo, P., 239
Rosengarten, H., 921
Rossi, D. J., 951
Rowland, N. E., 451
Roy, E. J., 201

Sadowski, B., 527
Sahgal, A., 995
Sarnyai, Z., 209
Sauvaire, Y., 369
Scali, C., 19
Schechter, M. D., 305
Schechtman, V. L., 849
Schenk, S., 729
Schuster, C. R., 131
Schweitzer, J. W., 921
Sechman, A., 601
Seiden, L. S., 987
Sellers, E. M., 963
Shah, G., 983
Shaughnessy, R. A., 987
Shibuya, H., 691
Shimizu, M., 719
Shimizu-Sasamata, M., 335
Shirouzu, M., 445
Short, K. R., 827
Silbert, L. H., 553
Silverman, P. B., 749
Simon, P., 685
Smith, F. L., 383
Smith, G. P., 85, 243
Smith, J. B., 565
Somani, S. M., 713
Sorvið, J., 123
Souquet, A. M., 495
Spear, D. J., 399
Spikkerud, E., 519
Stanford, M. S., 959
Starr, B. S., 321
Starr, M. S., 321
Stiff, D. D., 77
Stiller, R. L., 375
Strecker, R. E., 759
Strupczewski, J. T., 9
Sufka, K. J., 507
Suzuki, T., 703, 881
Svingos, A. L., 759
Swann, A. C., 247
Swerdlow, N. R., 629
Sze, P. Y., 991

Takeda, N., 817
Takita, M., 623
Tanaka, M., 419
Tapia, R., 147
Tassoni, G., 481
Taylor, S., 549
Telegdy, G., 209
Teneud, L., 45, 51
Terry, Jr., A. V., 925
Thomas, J., 615, 619
Ticku, M. K., 755
Tilson, H. A., 309
Tirassa, P., 283
Toru, M., 691
Towett, P. K., 153
Tsakiris, S., 363
Tsibulsky, V. L., 465, 473
Tsuda, A., 419
Tyrka, A., 243

Underberger, S. J., 487

Vaille, A., 791
Velíšek, L., 889
Verbanac, J. S., 429
Vogel, W. H., 327
Vogel-Sprott, M., 59
Vondřičková, R., 889

Wang, L. C. H., 935
Wang, Y., 963
Ward, T. R., 309
Watanabe, A., 691
Watanabe, H., 719
Watanabe, S., 89
Watkins, L. R., 161
Wayner, M. J., 455
Weiss, G. F., 185
Weiss, S. R. B., 439
Westbrook, R. F., 501
Wiley, J. L., 263
Wilkins, L., 803
Winter, J. C., 221
Woodmansee, W. W., 553
Woods, A. T., 9
Wronska-Fortuna, D., 601

Yamada, S., 173
Yamamoto, M., 335
Yamamoto, T., 89
Yokoo, H., 419
York, D. A., 487
Yoshida, M., 419
Yoshii, T., 703
Yoshikawa, T., 691
Young, R., 229, 865

Zangrossi, Jr., H., 931
Zini, I., 607
Zupan, G., 19